

Docket No.: 4661-0108PUS1  
(PATENT)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

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In re Patent Application of:  
Banwari LAL et al.

Application No.: 10/564,365

Confirmation No.: 9223

Filed: June 2, 2006

Art Unit: 3676

For: A PROCESS FOR ENHANCED RECOVERY  
OF CRUDE OIL FROM OIL WELLS USING  
NOVEL MICROBIAL CONSORTIUM

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Examiner: BATES, Z.W.

**LETTER SUBMITTING ADDITIONAL INFORMATION**

MS Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Attached is a Declaration Regarding Deposit of Microorganisms for your consideration in conjunction with the Amendment filed on April 2, 2008 in the above mentioned matter. The Declaration states that a deposit has been made, the date of deposit, the name and address of the IDA and a description of the deposited materials. The Declaration further states that all restrictions on the deposit will be lifted upon issue of a U.S. Patent.

Application No.: 10/564,365

Docket No.: 4661-0108PUS1

No fees are required for this submission.

Dated: May 28, 2008

Respectfully submitted,

By   
Mark J. Nuell

Registration No.: 36,623

BIRCH, STEWART, KOLASCH & BIRCH, LLP

12770 High Bluff Drive

Suite 260

San Diego, California 92130

(858) 792-8855

Attorney for Applicant

**PATENT**  
**4661-0108PUS1**  
**IN THE U.S. PATENT AND TRADEMARK OFFICE**

APPLICANT: Banwari Lal et al.  
SERIAL NO.: 10/564,365      GROUP: 3676  
FILED: January 12, 2006      EXAMINER: Bates, Zakiya W.  
FOR: A PROCESS FOR ENHANCED RECOVERY OF CRUDE OIL FROM OIL WELLS USING NOVEL  
MICROBIAL CONSORTIUM

**DECLARATION REGARDING DEPOSIT OF MICROORGANISMS**

Honorable Commissioner of Patents  
Washington, D.C. 20231

Sir:

I, MM TASHI, do hereby declare as follows:

I am an officer of THE ENERGY RESEARCH INSTUTE, the assignee of the above-identified application, with an office at:

Darbari Seth Block, Habitat Centre, Lodhi Road, New Delhi-110 003, INDIA

Cultures of the following microorganisms were deposited under the terms and conditions of the Budapest Treaty at the Microbial Type Culture Collection and Gene Bank (MTCC), Institute of Microbial Technology (IMTECH), Secotor 39-A, Chandigarh-160 036 (Union Territory), on the indicated dates.

<u>Deposit</u> <u>Date</u>	<u>Scientific</u> <u>Description</u>	<u>Depository</u> <u>Designation</u>
Sept. 1, 2004	Microbial consortium	Safe Deposit MTCC S2-001

(Converted to deposited for patent purposes MTCC 5169, *see* attached declaration published with W0 2005/005773 A3)

The above depository affords permanence of the deposits and ready accessibility thereto by the public if a patent is granted, under conditions which assure (a) that access to the culture will be available during pendency of said patent application to one determined by the Commissioner to be entitled thereto under 37 C.F.R. 1.14 and 35 U.S.C. 122, and (b) that the above-mentioned cultures will be available to the public without restriction upon the granting of a patent.

These deposits are referred to on page 6 lines 30-33, 18 lines *passim*, 19 lines 18-29, of the above-identified application and are identified by deposit number, name and address of the depository. The taxonomic description to the extent available is included in the specification.

The undersigned hereby assures the permanent availability of said cultures to the public through the above depository and in the event that any of the strains should become non-viable, mutate or inadvertently be destroyed, the undersigned will replace the strains at the above-mentioned depository. The undersigned further assures that all restrictions on the availability to the public of the above-mentioned cultures will be irrevocably removed upon the granting of a patent.

The above-mentioned deposits will be maintained (1) for thirty (30) years from the date of deposit, (2) for five (5) years after the last request for the deposit at the depository, or (3) for the enforceable life of any patent which issues from the above-identified application, whichever is longer.

Attached hereto is a copy of paper(s) from said depository evidencing the agreement between said depository and the depositor.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Date: 10.04.08

By 

**\*\*Name\*\***

**Air Cmde M M Joshi (Retd)**  
**Director**  
**Enterprise and Technology Development**  
**The Energy and Resources Institute**  
**Darbari Seth Block, Habitat Place**  
**Lodhi Road, New Delhi-110 003**

**\*\*Title of position\*\***

**PATENT**

4661-0108 PUS1

IN THE U.S. PATENT AND TRADEMARK OFFICE

APPLICANT: Assignee - Institute Of Reservoir Studies, ONGC, Ahmedabad-380005

SERIAL NO.: 10/564,365 GROUP: 3676

FILED: January 12, 2006 EXAMINER: Bates, Zakiya W.

FOR: A PROCESS FOR ENHANCED RECOVERY OF CRUDE OIL  
FROM OIL WELLS USING NOVEL MICROBIAL CONSORTIUM

DECLARATION REGARDING DEPOSIT OF MICROORGANISMS

Honorable Commissioner of Patents  
Washington, D.C. 20231

Sir:

I, R. V. Marathe, do hereby declare as follows:

I am an officer of INSTITUTE OF RESERVOIR STUDIES, the assignee of the above-identified application, with an office at: ONGC, Chandkheda, Ahmedabad-380005, INDIA.

Cultures of the following microorganisms were deposited under the terms and conditions

of the Budapest Treaty at the Microbial Type Culture Collection and Gene Bank (MTCC), Institute of Microbial Technology (IMTECH), Sector 39-A, Chandigarh-160 036 (Union Territory), on the indicated dates.

Deposit Date	Scientific Description	Depository Designation
Sept. 1, 2004	Microbial consortium	Safe Deposit MTCC S2-001 (Converted to deposited for patent purposes, MTCC 5169 see attached declaration published with WO 2005/005773 A3)

The above depository affords permanence of the deposits and ready accessibility thereto by the public if a patent is granted, under conditions which assure (a) that access to the culture will be available during pendency of said patent application to one determined by the Commissioner to be entitled thereto under 37 C.F.R. 1.14 and 35 U.S.C. 122, and (b) that the above-mentioned cultures will be available to the public without restriction upon the granting of a patent.

These deposits are referred to on page 6 lines 30-33, 18 lines *passim*, 19 lines 18-29, of the above-identified application and are identified by deposit number, name and address of the depository. The taxonomic description to the extent available is included in the specification.

The undersigned hereby assures the permanent availability of said cultures to the public through the above depository and in the event that any of the strains should become non-viable, mutate or inadvertently be destroyed, the undersigned will replace the strains at the above-mentioned depository. The undersigned further assures that all restrictions on the availability to the public of the above-mentioned cultures will be irrevocably removed upon the granting of a patent.

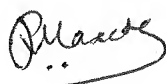
The above-mentioned deposits will be maintained (1) for thirty (30) years from the date of deposit, (2) for five (5) years after the last request for the deposit at the depository, or (3) for the enforceable life of any patent which issues from the above-identified application, whichever is longer.

Attached hereto is a copy of paper(s) from said depository evidencing the agreement between said depository and the depositor.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Date: 8<sup>th</sup> May 2008

By



**\*\*Name\*\***

Dr. R V Marathe

**\*\*Title of position\*\***

Group General Manager-Head, IRS, ONGC

Dr. R. V. Marathe  
GGM-Head IRS<sub>e</sub>

Applicant's or agent's file reference PCT0019	International application No. PCT/IN2004/000206 PCT/IN2004/000206
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**INDICATIONS RELATING TO DEPOSITED MICROORGANISM  
OR OTHER BIOLOGICAL MATERIAL**

(PCT Rule 13biv)

A. The indications made below relate to the deposited microorganism or other biological material referred to in the description on page <u>1</u> , line <u>5</u>	
B. IDENTIFICATION OF DEPOSIT Further deposits are identified on an additional sheet <input type="checkbox"/>	
Name of depositary institution MTCC Microbial Type Culture Collection & Gene Bank (MTCC)	
Address of depositary institution (including postal code and country) Institute of Microbial Technology (IMTECH), Sector 39A, Chandigarh 160 038 (Union Territory) India	
Date of deposit September 1, 2004	Accession Number MTCC 5169
C. ADDITIONAL INDICATIONS (leave blank if not applicable) This information is continued on an additional sheet <input type="checkbox"/>	
The microbial consortium was initially deposited with the depositary on August 8, 2001 and kept as "Safe Deposit" with accession number MTCC S2-001. Subsequent to filing of patent application, the said safe deposit was converted in to "deposit for patent purposes" with accession number MTCC 5169. Indications about the deposition of microbial consortium has been described at pages (page number-line) 1-5, 6-31, 7-12, 11-12, 19-27 and 31-6.	
D. DESIGNATED STATES FOR WHICH INDICATIONS ARE MADE (if the indications are not for all designated States)	
E. SEPARATE FURNISHING OF INDICATIONS (leave blank if not applicable)	
The indications listed below will be submitted to the International Bureau later (specify the general nature of the indications e.g., "Accession Number of Deposit")	

For receiving Office use only	For International Bureau use only
<input type="checkbox"/> This sheet was received with the international application	<input type="checkbox"/> This sheet was received by the International Bureau on:
Authorized officer	Authorized officer
	REC'D 11-6 DEC 2004 WIPO PCT